THELYPTERIS LIMBOSPERMA IN EASTERN NORTH AMERICA

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Thelypteris limbosperma (All.) H.P. Fuchs was collected for the first time in eastern North America, on the west coast of Newfoundland, in July 1973. The fern was found growing along small streams in an open forest of *Abies balsamea*, in the tablelands of the Long Range Mountains.

The species, widely distributed in the northern hemisphere, has been notable in its absence from eastern North America. In North America, its distribution has been restricted to the Pacific coast, from coastal Alaska (including the Aleutian Islands) to southeast British Columbia and the Cascade Mts. of central Washington (Hitchcock et al., 1969).

The Eurasian distribution is more complex. The species is found in Central and North Western Europe extending from southern Sweden to the western Ukraine and south to Central Italy and the Pyrenees (Tutin et al., 1964). In Asia, apart from a few isolated localities in Siberia (Hultén, 1962), this fern is found from the Kamtchatka Peninsula to Honshu (Japan) — (refer to distribution map, Hultén, 1962).

Botanical and geological studies, subsequent to Fernald's proposal (1925) of unglaciated "nunatak" zones in northeastern North America, have been critical of this hypothesis whereby disjunct populations survived in refugia. Alternatively, if we presume that Newfoundland was completely glaciated during the Pleistocene and that all vegetation was destroyed, this population of *Thelypteris limbosperma* may be regarded as a postglacial introduction. Considering the isolation of the population and the absence of other localities in eastern North America, it may be concluded that the species was not introduced by man but instead owes its origin to long-distance dispersal from

either a Eurasian, a western North American, or a now extinct eastern North American population.

SPECIMENS: *Thelypteris limbosperma* (All.) H. P. Fuchs, St. Barbe South District: Heather Pond (P113); open *Abies balsamea* forest on wet slope with *Rhododendron canadense* and *Rubus chamaemorus*. Lat. 49° 46′ N, Long. 57° 33′ W., alt. 1650′. July 14, 1973. *Bouchard and Hay* 73-507, (BH, CAN, DAO, GH, MT).

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